

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Dae-Gyun KIM et al. Examiner: Diego D. HERRERA

Serial No.: 10/777,432 Art Unit: 2617

Filed: February 12, 2004 Date: December 4, 2008

For: **APPARATUS AND METHOD FOR FAST CALL SETUP IN A MOBILE COMMUNICATION SYSTEM**Mail Stop A.F.  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450AMENDMENT TRANSMITTAL FORM

Sir:

Transmitted herewith is an amendment in the above-identified application.

- ☐ Small entity status of this application under 37 C.F.R. §§1.9 and 1.27 has been established by a verified statement previously submitted.
- ☐ A verified statement to establish small entity under 37 C.F.R. §§1.9 and 1.27 is enclosed.
- ☒ No additional fee is required.

For	Claims Remaining After Amendment	Highest No. Previously Paid For	Present Extra	Rate (Small Entity)	Addit. Fee	Rate	Addit. Fee
TOTAL CLAIMS*	10	20	0	x 26 =	\$0	x 52 =	\$0
INDEPENDENT CLAIMS	3	5	0	x110 =	\$0	x220 =	\$0
<input type="checkbox"/> First Presentation of Multiple Dep. Claim				195		390	\$0

\* If the entry in Col. 1 is less than entry in Col. 2, write "0" in Col. 3.

\*\* If the "Highest No. Previously Paid for" IN THIS SPACE is less than 20, enter "20".

\*\*\* If the "Highest No. Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The Highest No. Previously Paid For (Total or indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

- ☐ Please charge Deposit Account No. 50-4053 in the amount of \$\_\_\_\_. Two (2) copies of this sheet are enclosed.
- ☐ A check in the amount of \$\_\_ is enclosed.
- ☒ Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. §§1.16 and/or 1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account No. 50-4053. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge Deposit Account No. 50-4053 therefor.

Respectfully submitted,



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**APPLICANT(S):** Dae-Gyun KIM et al.      **ART UNIT:** 2617  
**APPLICATION NO.:** 10/777,432      **EXAMINER:** Diego D. HERRERA  
**FILING DATE:** February 12, 2004      **DATED:** December 4, 2008  
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**AMENDMENT**

Sir:

In response to the Office Action of the United States Patent and Trademark Office dated September 4, 2008, please consider the following amendments and remarks.

**IN THE CLAIMS**

1-3. (Cancelled)

4. (Previously Presented) A method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base station, the method comprising the steps of:

entering at least one digit corresponding to a recipient's phone number;

receiving an origination message, by the base station, that does not contain the recipient's phone number from the mobile station, assigning to the mobile station wireless resources and transmitting to the mobile station a channel assignment message containing the assignment information;

after transmitting the channel assignment message, assigning wireless channels to the mobile station;

after completion of the assignment of the wireless channels, transmitting to the mobile switching center a service request message requesting assignment of a wire resource when an origination continuation message, transmitted in response to a send key input, containing a recipient's phone number is received from the mobile station; and

upon receiving a wireless resource assignment request message from the mobile switching center, acknowledging the wireless resource assignment request message as a message indicating completion of the assignment of the wire resource in the mobile switching center, and transmitting a wireless resource assignment complete message to the mobile switching center.

5. (Currently Amended) The method of claim 4, further comprising the steps of:

upon receiving the assignment request message from the mobile switching center, determining whether assignment of the wireless channels is completed; and

transmitting the assignment complete message to the mobile switching center if when assignment of the wireless channels is completed.

6. (Currently Amended) A method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base station, the method comprising the steps of:

receiving an origination message generated in response to the entry of at least one digit corresponding to a recipient's phone number;

upon receiving an origination message from the mobile station, transmitting to the mobile switching center a service request message requesting assignment of a wire resource, simultaneously assigning wireless resources to the mobile station, and transmitting a channel assignment message containing the assignment information to the mobile station;

assigning wireless channels to the mobile station; and

~~if~~when a wireless resource assignment request message is received from the mobile switching center, acknowledging the wireless resource assignment request message as a message indicating completion of the assignment of the wire resource in the mobile switching center, and transmitting, after receiving an origination complete message generated in response to the entry of a send key, an assignment complete message to the mobile switching center.

7. (Previously Presented) The method of claim 6, wherein the assignment request message from the mobile switching center is received after a service request message is transmitted.

8. (Currently Amended) The method of claim 6, further comprising the steps of:

upon receiving the assignment request message from the mobile switching center, determining by the base station whether assignment of the wireless channels is completed; and

transmitting the assignment complete message to the mobile switching center ~~if~~ when assignment of the wireless channels is completed.

9. (Currently Amended) A method for performing call setup by a base station upon call attempt by a mobile station in a mobile communication system having the base station for

serving the mobile station, and a mobile switching center for controlling the base station, the method comprising the steps of:

upon receiving an origination message, transmitted in response to the entry of at least one digit corresponding to a recipient's phone number, that does not contain the recipient's phone number from the mobile station, transmitting a service request message requesting assignment of a wire resource to the mobile switching center, simultaneously assigning wireless resources to the mobile station, and transmitting a channel assignment message including the assignment information to the mobile station;

after transmitting the channel assignment message, assigning wireless channels to the mobile station;

after assignment of the wireless channels, transmitting to the mobile switching center a recipient's phone number when an origination continuation message, transmitted in response to entry of a send key, is received from the mobile station; and

after assignment of the wireless channels, if when a wireless resource assignment request message is received from the mobile switching center in response to a service request message, acknowledging the wireless resource assignment request message as a message indicating completion of the assignment of the wire resource in the mobile switching center, and transmitting to the mobile switching center a wireless resource assignment complete message.

10. (Cancelled)

11. (Cancelled)

12. (Previously Presented) The method of claim 4, wherein the step of assigning wireless channels comprises:

assigning, before input of the send key, a forward traffic channel and a reverse traffic channel corresponding thereto according to the assignment information, and transmitting a preamble over the assigned reverse traffic channel; and

exchanging acknowledgement(ACK) orders with the base station and performing service negotiation with the base station.

13. (Previously Presented) The method of claim 4, wherein the origination message includes a dummy phone number consisting of all '0s'.

14. (Previously Presented) The number of claim 9, wherein the step of assigning wireless channels comprises:

assigning a forward traffic channel and a reverse traffic channel corresponding thereto according to the assignment information, and transmitting a preamble over the assigned reverse traffic channel; and

exchanging acknowledgement(ACK) orders with the base station and performing service negotiation with the base station.

15. (Previously Presented) The method of claim 9, wherein the origination message includes a dummy phone number consisting of all '0s'.

16. (Cancelled)

**REMARKS**

Reconsideration of this application, in view of the amendments, is respectfully requested.

Prior to this amendment, Claims 1-16 were pending in the application, with Claims 1, 4, 6, 9 and 10 being the independent claims.

The Examiner objected to Claims 5, 6, 8 and 9. The Examiner rejected Claims 1-16 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,631,275 to *Martin et al.* (hereinafter, *Martin*).

Regarding the objection to Claims 5, 6, 8 and 9, the claims have been amended as suggested by the Examiner. For example, Claim 5 has been amended to recite transmitting the assignment complete message to the mobile switching center when assignment of the wireless channels is completed. Accordingly, the objection to Claims 5, 6, 8 and 9 should be withdrawn.

Regarding the §102(e) rejection, the Examiner contends that each element of Claims 1-16 is taught or suggested by *Martin*. *Martin* discloses a method for accelerating call establishment in a radio communication system. Instead of waiting for completion of dialing, the terminal immediately sends a channel request message to the network. Claims 1-3, 10, 11 and 16 have been cancelled without prejudice.

Claim 4 recites, in part, a method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base station. After transmitting a channel assignment message, wireless channels are assigned to the mobile station. After completion of the assignment of the wireless channels, a service request message is transmitted to the mobile switching center requesting assignment of a wire resource when an origination continuation message containing a recipient's phone number is received from the mobile station. Upon receiving a wireless resource assignment request message from the mobile



switching center, the wireless resource assignment request message is acknowledged as a message indicating completion of the assignment of the wire resource in the mobile switching center.

*Martin* describes the use of Dual Tone Multifrequency (DTMF) in Public Land Mobile Systems (PLMN) and Global System for Mobile Communication (GSM). However, *Martin* fails to provide any disclosure relating to requesting assignment of wire resources at a mobile switching center when a recipient's phone number is received from a mobile station, and the acknowledgement of a wireless resource assignment request message from the mobile switching center as a message indicating completion of the assignment of the wire resource in the mobile switching center, as recited in Claim 4.

The Examiner contends that *Martin* discloses a system that is made of GSM and PLMN networks that support wired and wireless communications, however, *Martin* fails to provide any disclosure that teaches or suggests the specific recitations of Claim 4 described above. Further, the Examiner fails to provide any evidence that these elements would be inherent in *Martin*. Thus, Claim 4 is patentable over *Martin*.

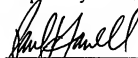
The Examiner also rejected independent Claims 6 and 9 under 35 U.S.C. §102(e). Claims 6 and 9 contain subject matter similar to that of Claim 4. In view of the above, Claims 6 and 9 are also patentable over *Martin*.

Regarding Claims 5, 7, 8 and 12-15, while not conceding the patentability of the dependent claims, *per se*, these claims are also patentable for at least the above reasons. Accordingly, Applicants assert that Claims 4-9 and 12-15 are allowable over *Martin*, and the rejection under 35 U.S.C. §102(e) should be withdrawn.

Accordingly, all of the claims pending in the Application, namely, Claims 4-9 and 12-15 are believed to be in condition for allowance. Should the Examiner believe that a telephone

conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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